

Wildlife & Ecosystem Services Working Group

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Variations in Seasonality & Veg phenology – Wildlife Phenology interactions

1. Degrees of flexibility within and among species in response to variability in seasonality

– we are in the unique position to have the long-term datasets in both BOTH the RS & animal movement needed to explore this

- including defining thresholds
- including identifying specific variables that they be responding to (ie. multiple dimensions of seasonality)



For example: Both & [Visser 2001](#)
[Walther et al. 2002](#)

[Parmesan & Yohe 2003](#)
[Charmantier et al. 2008](#)

[Post & Forchhammer 2008](#)
[Forcada & Trathan 2009](#)

[Zimova et al. 2014](#)
[Boelman et al. 2017](#)

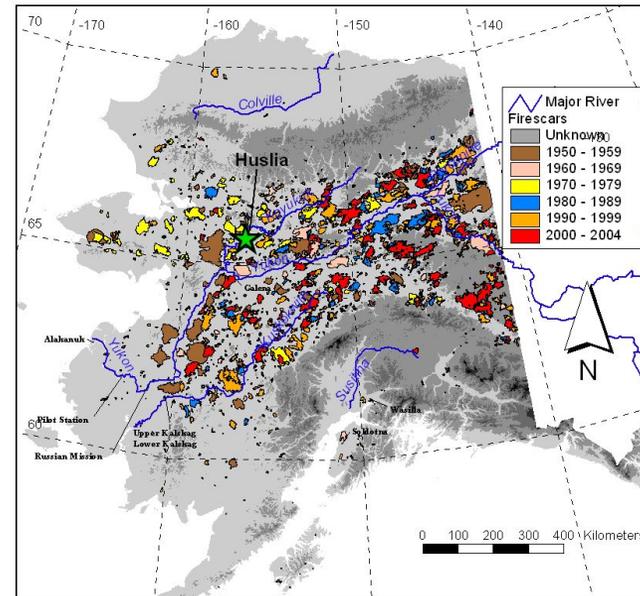
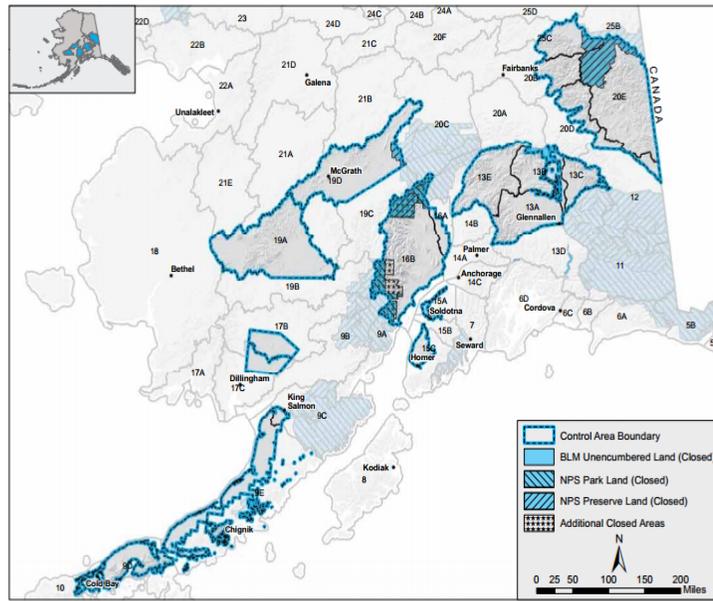
2. Late onset of fall conditions & impacts on subsistence moose hunting (Tod Brinkman)

- Warm falls, leaves staying on longer, moose moving around less, reducing encounters with humans and reducing harvest yield

Wildlife – Fire interactions

(Short and long term responses/effects)

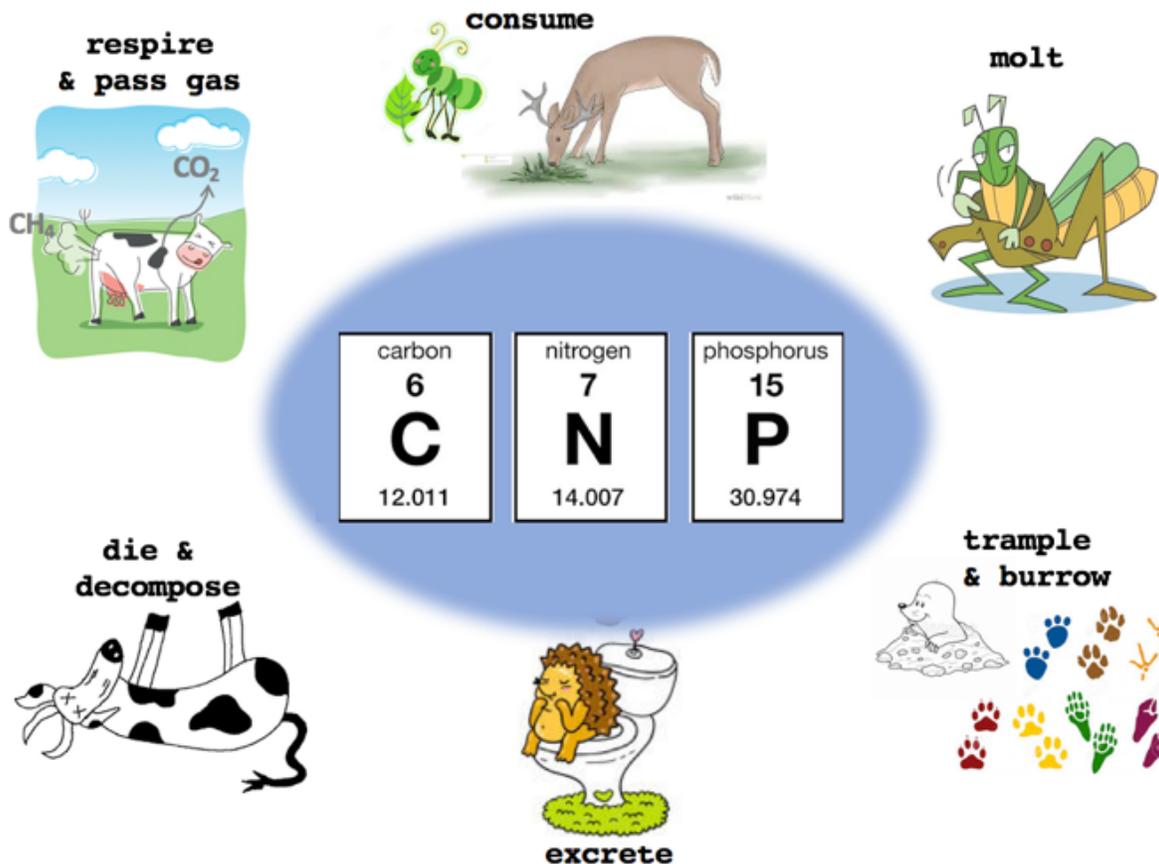
1. Changing movement patterns means access by human stakeholders (Tod Brinkman)
(i.e hunting, wildlife viewing) – who are the winners and losers?
2. Animal influence on succession post-fire
3. Fire influence on forage availability
4. Could top carnivores affect the flammability of future landscapes? (Laura Prugh)
 - Wolf control → moose control → plant succession post-fire → vulnerability to reburning



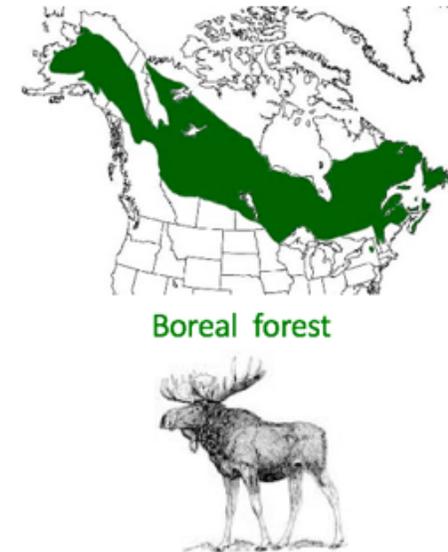
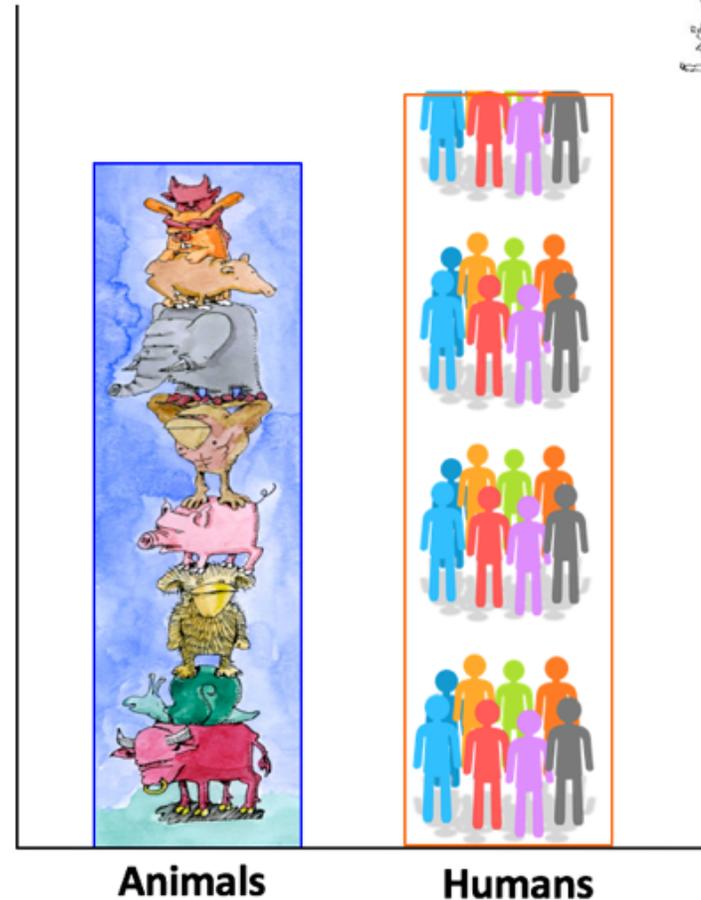
Animating the Carbon Cycle

- we should talk to Scott and to the Carbon WG)
- huge amount of work on this topic in last 40 years (Roger)
- note that we have the long-term datasets needed to explore this

Example: Caribou migration and contribution to biogeochemical cycling and include them in Earth System models



Contribution to regional C budget
(Tg C yr⁻¹)



Public database of animal movement data: capabilities & gaps

(Gil Bohrer)

Two goals:

- a) Publish the existing animal movement dataset for ABR so it lives beyond this funding cycle
- b) Point out which questions we CAN and CANNOT answer with what we have available now and what we need to answer the ones we can't answer now to encourage more data owners to contribute to data gaps